**Mandroid - Running On Fumes - Demo Summary**

**Current Progress**

In this demonstration, Running On Fumes includes the following features:

* Dynamic spaceship movement by using thrusters to add force
* Planetary gravity and collision,
* High score registration and display,
* Fuel consumption and regeneration through environment pickups
* Inclusion of point and fuel pickups in the level
* Accelerometer support for camera tilting on mobile devices
* Main menu used to start the game and display the latest high scores.

The use case scenarios explored in this demonstration are:

* The user plays through a level to completion and moves on to the next challenge.
* User navigates the menu to display a list that compares their High Scores with other players.

**Simulated Features and Real Features**

The only simulated feature is the ability to keep playing the current level after the fuel reserves of the player’s ship are depleted. This concession is made because in the final product, fuel resources in each level will be very limited, which is not adequate for the demonstration, as many features need to be showcased in a level, which requires extensive navigation.

All of the features listed in the demo summary section are fully functional or very close to final product specifications. Thus, every one of those features uses data generated in real time according to the actions of the user and physical forces present in the game.

**Current Difficulties**

One of our main concerns is the generation of enemy game objects, because it requires the implementation of their artificial intelligence and the definition of their behavior when they collide or interact with non-player game objects. This is necessary because a collision may occur by accident and special measures need to be taken to ensure that the simulation can continue and the player can still reach their win condition.

Another concern is level design and testing, because we must account for proper pickup placement so that the player does not run out of fuel unfairly, but also we must account for proper planet size and placement to offer a fair challenge. This is important as we must now account for positive and negative user experience as well as feedback.

**Plans for the Next Month of Development**

The features that we plan to work on during the next month are:

* Scalability of the GUI according to the screen dimensions of various devices
* Implementation of a mini-map and compass
* Implementation of enemies and enemy artificial intelligence.
* Refactor and polish of currently implemented features